Artificial Intelligence in studies—use of ChatGPT and AI-based tools among students in Germany

Abstract

AI-based tools such as ChatGPT and GPT-4 are currently changing the university landscape and in many places, the consequences for future forms of teaching and examination are already being discussed. In order to create an empirical basis for this, a nationwide survey of students was carried out in order to analyse the use and possible characteristics of AI-based tools that are important to students. The aim of the quantitative study is to be able to draw conclusions about how students use such AI tools. A total of more than 6300 students across Germany took part in the anonymous survey. The results of this quantitative analysis make it clear that almost two-thirds of the students surveyed use or have used AI-based tools as part of their studies. In this context, almost half of the students explicitly mention ChatGPT or GPT-4 as a tool they use. Students of engineering sciences, mathematics and natural sciences use AI-based tools most frequently. A differentiated examination of the usage behaviour makes it clear that students use AI-based tools in a variety of ways. Clarifying questions of understanding and explaining subject-specific concepts are the most relevant reasons for use in this context.